

What is claimed is:

1. A retaining ring movable between an uncompressed state and a compressed state, comprising:

a generally C-shaped region having an inner peripheral surface; an outer peripheral surface; a first end; and a second end,

wherein said retaining ring is formed from a yieldable material that yields when moved from the uncompressed state to the compressed state.

2. The retaining ring according to claim 1, further comprising a first leg extending from said first end.

3. The retaining ring according to claim 2, further comprising a second leg extending from said second end.

4. The retaining ring according to claim 1, wherein said C-shaped portion is a curve that is circular in shape.

5. The retaining ring according to claim 3, wherein each of said legs further comprise a respective termination portion.

6. The retaining ring according to claim 5, wherein said termination portion of said first leg further comprises a tool receiving region and said termination portion of said second leg further comprises a tool receiving region.

7. The retaining ring according to claim 6, wherein said tool receiving region is

one of a slot, a hole and/or a dimple.

8. The retaining ring according to claim 1, wherein said ring is constructed from a ductile material.

9. The retaining ring according to claim 8, wherein said ductile material is non-work-hardened stainless steel.

10. The retaining ring according to claim 1, further comprising a first finger projecting from said inner peripheral surface.

11. The retaining ring according to claim 1, further comprising four fingers projecting from said inner peripheral surface.

sub A₂ 12. The retaining ring according to claim 3, wherein said first and second legs are substantially straight and point toward each other in the uncompressed state.

sub C 13. The retaining ring according to claim 1, wherein said C-shaped region is an arc that encompasses 270 degrees.

sub A₃ 14. A method for retaining an inner component within an outer component using a retaining ring comprising:

twisting the retaining ring in first direction using a tool, reducing the diameter of the ring and causing the ring to yield into a compressed state;

aligning the ring with a groove in the outer component; and

twisting the retaining ring in second direction opposite to the first direction using the tool, increasing the diameter of the ring and causing the ring to yield into an uncompressed state.

Sub C. > 15. The method according to claim 14, wherein the retaining ring is formed from a ductile material.

16. The method according to claim 15, wherein the ductile material is non-work hardened stainless steel.

17. The method according to claim 14, comprising:
inserting the tool into tool receiving portions of the legs before the first twisting step; and
removing the tool from tool receiving portions of the legs after the second twisting step.

Sub A. > 18. A method for retaining an inner component within an outer housing using a retaining ring comprising:

moving the ring from a first, uncompressed state, to a second, compressed state by rotating a tool engaged with opposed legs of the ring;

aligning the ring with a groove in the housing; and

moving the ring from the second, compressed state into the first, uncompressed state by rotating the tool engaged with the legs of the ring,

wherein the first step of moving the ring from the first state to the second state causes the material of the ring to yield, and wherein the second step of moving the ring

from the second state to the first state also causes the material to yield.

19. The method according to claim 18, wherein the retaining ring is formed from a ductile material.

20. The method according to claim 18, wherein the ductile material is non work hardened stainless steel.

21. A retaining ring movable between an uncompressed state and a compressed state, comprising:

a generally C-shaped region having an inner peripheral surface, an outer peripheral surface, a first end; and a second end, said retaining ring being formed from a yieldable material that yields when moved from the uncompressed state to the compressed state; and

a first leg extending from said first end and having first tool receiving means for receiving a tool; and

a second leg extending from said second end and having second tool receiving means for receiving a tool.